Brickendon Journal 11

BRICKENDON

LONDON VS EUROPE

How will Brexit impact your location strategy? The fight is already on to gain a slice of London's financial credibility. Do you know what effect it will have on your business?

GDPR

Are you prepared? Find out the key points you need to know to be compliant with the biggest data privacy change in 20 years

MIFID II

Is MiFID II keeping you awake at night? We examine the key concerns to ensure you will be ready for the January 2018 deadline

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- **PSD2,** APIs and XS2A are the future
- Will **FinTech** produce the next banking revolution?
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CELEBRATING 7 YEARS OF BRICKENDON

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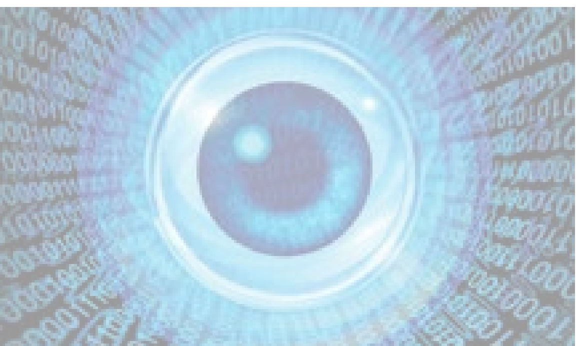


Christopher Burke, CEO and founder
BRICKENDON CONSULTING

BRICKENDON'S BRIGHT HORIZON

Brickendon are celebrating! We turned seven in May this year and what a busy seven years it has been!

Since I founded the company in 2010, Brickendon has gone from strength to strength. In the past 12 months alone, we have increased our consultant numbers to more than 100, grown the business into new areas, culminating in our first acquisition, and expanded internationally to open our first US office in New York.

As an organisation, we thrive on the continual change in the financial services landscape, offering our clients innovative, cost-saving solutions to address their challenges. We look at what's happening now, what's gone before and what's likely to happen in the future, covering all topics from location optimisation and regulatory change through to programme management and TestOps. We use our expertise to do what our clients are struggling to do on their own and help them not only solve the problems they are facing but also to improve their business along the way.

Brickendon's main focus is providing exceptional client value. Without this, we wouldn't be where we are today - running strategic, regulatory and governance projects in the UK and US for a range of large international financial institutions.

Our ultimate aim is to provide a client experience through the delivery of high-quality consulting services that makes our clients only want to work with us. This is the foundation on which we have built and grown our business so far, and will continue to do so going forward. The future looks bright for Brickendon as we focus on partnering with our clients around the globe and gradually expanding our footprint. With a focus on tailoring our solutions to meet our clients' needs, whilst keeping our eye on industry developments, we have a unique offering that can help you, our clients, overcome the never-ending array of challenges facing the financial services community.

At Brickendon we put our clients first. What makes sense for you, makes sense for us, and this, alongside our consistent record of high-quality tailored offerings, is our focus and our strength.

I'm looking forward to the next 10 years as it's a very exciting time for Brickendon, both internally and externally as we continue to grow and learn to thrive alongside our clients. Together we can build the best solutions to the ongoing challenges facing the financial services sector, allowing both your businesses and ours to prosper.

FEMALE TALENT MATTERS

By Christopher Burke

Despite more women than men starting in the financial services sector, only 19.5 percent of the industry's senior roles are held by women, with many leaving at middle management level. Females also make up only 14 percent of financial services executive committees. While it seems common knowledge that FS struggles to retain women, the problem may appear worse than first realised, with the Financial Services Forum reporting that at the current level of growth, in 30 years' time, the global financial services sector will still not have reached 30 percent female board representation. Brickendon CEO Christopher Burke looks at why female talent matters.

The failures of previous attempts to boost gender diversity have recently become more apparent. A study carried out last year found that 92 percent of women working in the financial services sector felt raised publicity had brought about little or no change, while 65 percent of respondents believed that their gender hindered their chances of success in the sector. What's more, a poll of 25,000 mostly female employees found that many feel there are too few role models for them to emulate. As a result, this perceived lack of female progression could be discouraging women from joining the sector and persuading them to choose alternative routes to pursue professional success. Accordingly, the sector is missing out on a large pool of talent and this must be addressed.

Retain your talent

Momentum is building within the sector to maintain a more gender neutral workforce from entry level to C-suite, with more reports highlighting the financial benefits of retaining female talent. On a macroeconomic scale, equalising women's productivity and employment to men's could add £600bn to the UK economy. Companies that have a diversity of ethnicity and gender are revealing above average financial results, with a recent study indicating that businesses with at least one woman on the board between 2006 and 2012 achieved an average equity return of 16 percent – 4 percent higher than those with no female board representation. Additionally, companies failing to appoint women to financial management positions risk losing top talent to savvier rivals, while not nurturing and retaining talented and ambitious women could lead to an industry-wide brain drain as they consider new careers in more attuned and progressive sectors.

Leave gender at the door

There are, however, tangible ways to increase gender diversity in the workplace. Following a recent Women in Finance report, the HM Treasury launched a charter asking financial services firms to commit to key industry actions. Such actions included the appointment of supportive line managers to encourage a diverse range of women, and men, to pursue top positions. For instance, one high street bank has implemented mandatory unconscious bias training for all of its managing directors and directors, referring to the positive and negative stereotypes that we may have and which can affect our behaviours to ensure employees are championed on merit.

Evolve cultural attitudes

Targets and quotas aside, the cultural attitudes within financial services may be at the heart of the problem and must be improved for any substantial change to occur, while a more proactive industry-wide response is still needed to offset previous failures and resolve the lack of women in financial management positions. Evolving the workplace ethos should be a priority and ways to accomplish this include encouraging women to return to the sector, improving maternity (and paternity) arrangements, while also considering implementing mentoring schemes and programmes aimed at female students.

Dismantle 'dusk 'til dawn' culture

Another key action to consider is dismantling the 'dusk 'til dawn' culture prevalent within the financial services space, and providing employees with the technology and supportive culture needed to work more flexibly. This is not solely due to the perceived childcare obligations of professional women, even if more women than men still bear the burden of childcare. A flexible working culture has been shown to increase productivity, wellbeing, and aid with the attraction and retention of talent across the board. In our experience, facilitating the achievement of personal goals with a flexible working culture means that staff not only deliver to the best of their capabilities, but are even more engaged and committed members of the workforce.

Build on sector foundations

While all of these initiatives are important to consider, it is also worth bearing in mind how companies can evolve some of the foundational features and practices already well-established in the sector. Networking and gatherings are one such area and modernising these 'old boys' clubs' requires a more concerted effort to offer a wide range of themes and opportunities more accessible to female employees. Curbing these somewhat macho financial services environments can also improve confidence and self-belief among women aspiring to senior roles – an important step in accelerating the rate of women reaching management positions in the sector. Moreover, this could inspire the next generation of women in financial management positions to follow suit.

Although 72 financial firms, employing over half a million people across the breadth of the sector, have signed up to the government's Women in Finance charter voluntarily, there is still more that can be done. While this does show a cultural shift is gaining momentum, it could take a few years before change is fully cemented within the structure of a business. As such, financial services companies should start implementing steps now, providing a supporting culture and flexible working to ensure they retain their female talent, encouraging them to progress through the ranks and toward a thriving career in financial services.

IS RIGHTSHORING SHAPING THE FUTURE OF FINANCIAL SERVICES OPERATIONS?

By Tim Smolcic

Offshoring in financial services (FS) was supposed to herald a golden era of cost saving and favourable market conditions. This initially attractive business model offered the FS sector an easy way to relocate many day-to-day primarily functional roles to countries with lower operating costs and cheaper manpower. The reality has proven more complex, says Tim Smolcic, a senior manager at Brickendon.

Companies that offshored some or all of their operations overseas have subsequently found that there are fewer multi-skilled staff available which can hinder efficient technical and logistical solutions. Furthermore, the level of education and specialist training available is often not like-for-like to the standard in the country where the business is headquartered. This means more management layers are now necessary for the same processes while subsequent costs and time-management issues have increased for resources in high-cost locations. In fact, increasing numbers of FS companies reviewing their current practices are finding that due to the additional hidden or unforeseen costs, offshoring can be several times more expensive.

Amid rising public discontent due to more services and operations being offshored, many companies are increasingly concerned by how their own offshoring practices are viewed by customers and employees. Rising wages overseas and volatile foreign economies, such as the vote to leave the EU and the rise of pro-nationalist politicians across Europe and the United States, have also played a part in companies reconsidering their operating processes.

As a result, new business models are emerging including rightshoring and nearshoring, which provide FS businesses with the opportunity to locate operations closer to home while keeping costs down.

Nearshoring

Nearshoring has served as a useful counterpoint to many of the primary disadvantages inherent within offshoring. With this model, businesses move their operations to a location closer to home that provides a similar highly skilled-base, infrastructure and resources at a lower cost. These locations usually operate in similar time-zones and have fewer cultural differences allowing business practices to remain efficient. For example, companies located in the UK may choose to nearshore to other Eurozone countries due to them sharing similar laws and trading routes, such as "passporting rights", while remaining close to London – one of the world's major financial hubs.

The associated costs of transferring operations from a perceived low-cost to a high-cost region are often lower than expected due to the international presence of most companies who may already have a presence in these areas. The pre-existing resources, assets and facilities smooth the transition and simplify processes involved with relocation. More efficient operational processes also save time, reduce overheads and cut down on unnecessary costs. Additionally, the biggest benefits tend to arise from the ability to more quickly source highly-skilled workforces that are otherwise unavailable in low-cost markets, resulting in teams that are smaller, require fewer management structures, work faster and deliver rapidly. This results in reduced operating costs for a similar output as opposed to a bloated low-cost team. Organisations have found that in comparison to low-cost locations, nearshore locations have been able to use a quarter of the staff whilst delivering more quickly and efficiently.

Rightshoring – and the future

The rising popularity of FS organisations looking to balance costs and quality has led to the emergence of new financial hubs such as Tel Aviv and Warsaw. Offering high-quality services with low overheads and operational costs, these mid-cost regions have positioned themselves as competitive and appealing areas for companies to outsource part or all of their business operations.

This strategic analysis and planning reduces costs, maintains quality and simplifies day-to-day business operations as opposed to offshoring thousands of miles from a company's headquarters.

As the protection of intellectual property has become an increasing concern within the FS sector, rightshoring strengthens managerial

control and helps protect against overseas vulnerabilities. These new FS hotspots are increasingly well-connected to global financial and communications systems, in addition to regional resources and infrastructure.

While offshoring is losing some of its appeal across the FS sector, it is by no means finished and still works for specific scenarios where skills and resources in low-cost markets are readily available, such as testing. Rightshoring is increasingly seen as the ideal mix of local and foreign allocations of workforces and business operations. Domestic, political and financial pressures – ranging from new regulatory requirements to growing competition from disruptive FS providers – have incentivised companies to evaluate their outsourcing procedures and consider strategies that can help them deliver better quality more quickly, whilst maintaining a lower cost base than operating fully onshore. As the FS sector continues to evolve at such an exciting rate, the trends shaping offshoring, nearshoring and rightshoring are by no means settled – but an important issue to keep your eye on.

WHY FINTECH ALONE DOESN'T HERALD THE NEXT BANKING REVOLUTION

By Nathan Snyder

FinTech is somewhat of a buzzword at the moment, with a number of innovation hubs being set up in financial centres around the world to encourage the development of FinTech startups. But the question is, is this sector actually capable of producing the next banking revolution? Brickendon Partner Nathan Snyder takes a closer look.

One of the largest technology shakeups in banking in recent years has been the use of advanced data analytics techniques to catch rogue trading activities within banks. The stand-out story has been the collaboration between Credit Suisse and Palantir, which led to the creation of a sophisticated analytics system for identifying the early warning signs of rogue trading. While many might assume this is a fintech startup success story, they would be wrong. Palantir already had a distinguished history of working with government agencies – most notably the CIA.

FinTech, defined by IOSCO's 2017 research report into the sector as typically offering one or more specific financial products or services in an automated fashion, has been slow to make its mark. Despite attracting considerable interest, progress to date has been slow.

Recent newspaper articles have typically focussed on the difficulties FinTech startups have had in creating a banking revolution through the innovative application of technology. The FinTech startup Moven recently admitted to the New York Times that they had toned down their rhetoric of replacing the banks, focussing instead on selling their technology to banks.

Banks' business models are protected by years of history, established practice and regulation. However, this isn't the same in all industries – and so-called technology disruption is occurring in other sectors. The best-known modern example is the breaking of taxi cab monopolies by the likes of Uber, Gett and Lyft. Through a combination of aggressive policies and highly-usable technology, these companies have replaced the existing intermediaries, who offered little economic value to the businesses they were managing.

Banks, however, are not classic intermediaries. The promise of FinTech "peer-to-peer lending" has failed in all but name. The idea that some people want to lend and others to borrow is a classic one that seems simple to solve via technology. However, the real value that banks provide is that they take deposits and issue loans, creating economic value in the process. The security provided by the banks' balance sheets is hard to replicate with a website and in many cases peer-to-peer lending is now provided by banks, such as the example of Citi teaming up with Lending Club in 2015.

On the other hand, IOSCO's paper also talks of another area of finance technology – namely emerging technologies that can be used to "supplement both FinTech new entrants and


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traditional incumbents". This provides a much more promising avenue for exploration.

The general trend in talking about emerging technologies seems to split opinion between passionate advocates and wary cynics. Sales pieces tend to overstate the case with a sense of pride and awe, giving the impression that robotics and artificial intelligence (AI) are already combined into an integrated set of products, which is not currently the case. This then inspires a backlash of cynical commentary discussing how far sales pitches have deviated from technological reality.

Another source of disillusionment has been the banks' interest in blockchain technology. For many, the magic of bitcoin was that it provided a distributed ledger for all, with the only barrier to entry being technical know-how. By contrast, some banks are proposing allowing only trusted institutions to hold the ledgers, thus dampening some of the enthusiasm.

Both the supporters and the doubters, however, miss the point. Whilst Libratus (the poker playing AI system built by two computer science researchers at Carnegie Mellon) may win Texas Hold 'Em tournaments and grab headlines, of equal interest is JP Morgan's COIN software. This learning machine has been taught to parse contracts for legal clauses that were previously only readable to humans. The implications for solving business problems from netting to client account segregation are huge.

And here is where the real revolution in banking is likely to come. Not from FinTech alone or banks alone, but from banks and FinTech companies collaborating on emerging technologies. Financial institutions are investing heavily in big data, artificial intelligence, blockchain and distributed ledger technology, in some cases with only an outline of a business use case. Instead of determining how technology can service their business model, they are looking to see what new business models the new technology might suggest. This is the future.

FAR-REACHING CONSEQUENCES: THE IMPLICATIONS OF MIFID II

By Harpreet Singh

The Markets in Financial Instruments Directive, aka MiFID II, remains one of the most talked about regulations in the financial services sector. Its impacts are far reaching – both in terms of the macro structure of the overall financial markets and the internal functional areas within the financial institutions themselves. Brickendon Director and MiFID specialist Harpreet Singh looks at why it's keeping executives up at night.

The deadline for MiFID II compliance has already been delayed a year to January 2018 in response to concerns about the complexity of implementation. With the new deadline less than a year away, many banks and asset managers are still worried. Their concerns can be primarily divided into two parts:

Data requirements

The foundation of MiFID II is data, however it requires firms to understand their data, conduct analysis of it, report it, or make decisions based upon it. The requirements for data are not limited to a specific part of the rules but are spread out across various articles and sub-articles within the regulation. As with many other data regulations, the data requirements can be categorised under completeness, timeliness and accuracy:

- **Completeness.** MiFID II asks for more data objects and more data points than its predecessors. For trade and transaction reporting examples include quotes, orders and transactions, and data points are the number of fields within them. For example, MiFID II requires 50 more fields to be filled out for transaction reporting than were required for MiFID I. Additionally, MiFID II requires firms to understand their execution-related data, trade data and product and client reference data – while potentially either publicising it to clients or sending it to regulators.

- **Accuracy.** One of the main aims of MiFID II is to bring standardisation to the marketplace. Standardisation makes it easier to compare firms, identify the laggards and measure accuracy. The reference data requirements are already proving onerous and have far-reaching data privacy issues for non-EU participants.

- **Timeliness.** Requirements including 'as soon as technologically possible' and 'near real-time' have become the norm for regulatory compliance since the credit crunch. MiFID II requires near real-time reporting for all trades conducted at a trading venue. Moreover, all transactions must be reported to their National Competent Authority (NCA) no later than one day post-transaction.

- Unclear rules. Almost every area of MiFID II regulation has various levels of uncertainty – although the areas of best execution, systematic internaliser regime, extra territoriality and data protection are particularly unclear. Parts of these issues relate to the amount of data that MiFID II requires, while the remainder stems from the nature of the directive itself. The products involved are significantly more complex and the market structure is bilateral in nature. As a result, the data to conduct the required analysis is not readily available.

MiFID II impact

- **Business Model.** Some of the key impacts to business models will come from changes to market structure, trading and clearing obligations, product governance and investor protections. The harmonisation of market structures into trading venues will lead to the migration of execution services from dealers to third-party venues and the separation of research from execution – leading to the creation of stand-alone research facilities. MiFID II focuses on product suitability and as a result requires better client analytics. These changes to business models may have unintended consequences that regulators or governments have not prepared for.

- **Internal Processes.** A key aspect of MiFID II is to strengthen the compliance function. Corporate governance is not only an issue for senior management but also for compliance, which provides advice before the remuneration policies are approved and is required to utilise a risk-based approach for establishing monitoring programmes. Firms are expected to establish and maintain a complaints policy, which should analyse the complaints data to identify and address any issues. Along with compliance, the product governance process has been expanded to include the whole product life cycle and carry out various suitability and appropriateness tests. These changes to the internal processes should ideally reflect a change in conduct and culture, but the pace of the changes may difficult.

- **IT Infrastructure.** MiFID II will impact the IT infrastructure of all its member firms from front-to-back. In the front end, buy-side firms will need to build new execution management systems alongside existing order management systems. Investment firms will need to keep the records of telephone conversations or electronic communications if a transaction was intended to – or actually did – take place. The firms providing best execution will need to build infrastructure in the front-office technology stock to ensure they have taken 'all sufficient steps' to comply. At the back end, golden data sources should be enriched with LEIs and ISINs for over-the-counter (OTC) products and identifiers for individuals. High-frequency trading firms will need to provide time stamps which are accurate up to micro seconds. The above examples simply reflect what is expected to be a significant technology uplift in what are already very cost-conscious technology organisations.

Unintended consequences

Without doubt there will be implementation challenges that will be difficult to overcome. The regulators expect better data quality and now regularly penalise firms that don't comply. Given that MiFID II is considerably more complex and impacts many more products and firms, it's likely that more fines will be issued once it comes into force.

The question is whether there is a value in giving more time to industry so that they can better adjust to life post-MiFID II? Will the implementation create a division between big and small firms or will it actually standardise the market and create more transparency for investors? The expectation of the regulators is that it will do the latter – but the only sure thing is that it will change the financial markets as we know them today.

BLOCKCHAIN AND BITCOIN, MAY THEIR FORCE BE WITH YOU

By Richard Warren

Blockchain has been hailed as the force that will change financial services, with the potential to transform whole industries, from simplifying payments and digital currencies, through to the clearing and settlement of stocks and bonds in the capital markets. It will also impact digital client identity and the functioning of trading contracts. But how far has Blockchain and the cryptocurrencies that use it come, where is it now and where is it going? Richard Warren, a senior manager at Brickendon takes a look at Blockchain and Bitcoin - the best-performing digital cryptocurrency of the past 12 months.

Blockchain technology was initially devised for the Bitcoin digital currency. It is a distributed database across the peer-to peer-network. The records are accessible in the public domain and so are easily and continually verified to ensure the latest transactions are processed, essentially forming a digital ledger of transactions. However, once data has been inputted, it cannot be changed. A 'block' can be viewed as a set of transactions much like in a bank statement. Each block is joined to other blocks in a chronological order to form the Blockchain, which details the history of all transactions since inception.

Bitcoin is the world's largest cryptocurrency. Transactions take place directly between users, with a peer-to peer-network to ensure transactions are verified without the use of a centralised authority. Bitcoin has no physical state, is not governed by central banks and has no intrinsic value.

So what does Bitcoin mean for the financial world?

Traditional banks act as the central repositories and exchanges, but this is expected to change with the adoption of Blockchain into the financial services industry. Due to the immutable quality of the Blockchain, many traditional authentication and settlement processes could either become redundant or faster. This makes the process a lot simpler, and arguably, a godsend for banks facing increased regulatory compliance and the need for transparency across all activities.

Already banks have engaged in Blockchain trials, including in digital currency, internal payment systems and Blockchain trading using Bitcoin exchange-traded funds (ETFs). As such, we are seeing a greater collaboration across the industry between central banks, global banks, FinTech start-ups and technical providers, as their individual virtues are coordinated to bring in the so-called Digital Age.

Despite Bitcoin being decentralised and therefore not controlled by a government like typical fiat currencies (legal tender issued by governments such as the US dollar and the Euro), there are still substantial influences on the currency, which can be seen by the effect China has on its value and volatility.

Most of the world's Bitcoin are mined (the process of verifying transactions and releasing new Bitcoin into circulation) and traded in China.

However, recently the Chinese government attempted to crack down on Bitcoin. As a result, trading surged in the latter part of the year when China attempted to limit the outflow of money from the country. In response, Bitcoin exchanging took place in less formal settings, including on sites such as Craigslist, with citizens using Renminbi to buy Bitcoin and then sell it on for US Dollars or Euros.

Chinese announcements can have a serious effect on the value of Bitcoin. In early January 2017, the Peoples Bank of China issued a number of statements informing the public that Bitcoin should be considered 'virtual goods' and not a currency, and reaffirmed the issues around liquidity and volatility (as well as launching investigations into some of the domestic exchanges). Shortly after these announcements the value of Bitcoin dropped around 20 per cent, proving that like other currencies, Bitcoin is affected by macroeconomic factors.

So what's next for digital currencies? Many global banks are now looking at Blockchain projects. These projects can provide numerous advantages to traditional banking models, as the finance industry makes a move towards digitalisation. Distributed ledgers, databases consensually shared and synchronised across different sites, institutions, or geographies, provide many benefits by allowing the recording of all relevant details in a transparent manner. This means banks can access their clients' repayment histories and other risk factors from a secure and verified peer-to-peer network.

Blockchain also provides substantial cost and time savings by speeding up processing and verification, removing some intermediaries that would no longer be required in data compilation and sourcing of the digitised assets and client information. Imagine utilising Blockchain in the preparation and agreement of legal contracts, where the Blockchain would be used to ensure the latest version is always shared and that the distributed nature of the technology would make fraud more difficult.

The possibilities are vast and open a wide range of opportunities for all sorts of industries, including financial services. As with any new development, where exactly Blockchain and the cryptocurrencies that use it, is going remains to be seen. One thing however that is certain, is that it is definitely going somewhere, and that in the future, it is likely to become a force to be reckoned with.

THE DATA WORLD IS CHANGING. BRICKENDON KNOWS IT, DO YOU?

By Corneliu Dicusar

Data is everywhere. Whether it's names, numbers, codes or statistics, the amount of data in society today is growing at a record rate, prompting the questions: where does it go; what should be done with it; who owns it and what rules regulate it? Brickendon Consultant Corneliu Dicusar looks at the new EU General Data Protection Regulation (GDPR) and what this legislation, described as the most important change in data privacy in 20 years, means for the financial services industry.

After more than four years of negotiations and over 4,000 amendments, the GDPR was finally adopted in May 2016 and will come into force next year, 2018. Its aim is to create a standardised legal framework which governs the way organisations handle data and empower clients to make informed decisions about the data they hold. The definition of personal data has been expanded from names and addresses, to include data that can 'single out' an individual (ie. IP addresses and internet aliases).

Under the new guidelines, consent for collecting and processing data can no longer be considered by default, and the individual has the right to revoke it at any point, including after it has been collected (the so-called 'right to erasure').

Companies that handle client data now have clearly defined obligations, including appointing a Data Protection Officer and notifying the authorities should a data security breach occur. Failure to comply with these requirements can lead to hefty fines and possible lawsuits.

The GDPR puts the emphasis on protecting the data generated by EU citizens and not just on companies operating within the EU. As such, the regulation has a global impact, as any company handling data relating to EU citizens will have to comply, regardless of their location.

To further strengthen its extra-territorial reach, there are signs that other countries are also looking to adopt data protection laws based on the principles and definitions outlined in the GDPR. As such, 'privacy by design' and compliance with GDPR should be a top focus for companies over the coming year and beyond.

GDPR is a complex legal document that should be reviewed in detail to assure full compliance before it becomes mandatory in May 2018. Here is a summary of the key points:

Definitions:

- Data subject: an individual who is the subject of personal data.

- Data Controller: a person who determines the purposes for, and the manner in which, any personal data is, or will be, processed.

- Data Processor (in relation to personal data): any person (other than an employee of the data controller) who processes the data on behalf of the data controller.

1 Scope of Personal Data

- Expanded to include other information which does not directly identify an individual, such as IP addresses, system IDs and cookies

2 Justification for Processing and Consent

- The individual must be presented with the business purpose justification for each item of data
- Clients must give their consent for data to be collected and processed and this can be retracted at any point, and can never be considered as implicit (ie. no pre-ticked boxes).

3 Data Protection Officers

- All public authorities and institutions must appoint a Data Protection Officer (DPO) where the core business activity involves systematic monitoring of individuals on a large scale or processing of large amounts of special categories of data

4 Security, Liability and Data Breach Notification

- Data security is the responsibility of both the collector and processor
- Third-party vendors must be chosen from a list of partners and legal responsibility shared with the client
- Breaches must be reported to the local Data Protection Authority without undue delay, but no later than 72 hours from the occurrence

5 Fines and Enforcement

- Increased to €20m or 4% of a firm's global turnover

6 Profiling

- Consent must be given for profiling - any form of automated processing of personal data intended to evaluate certain personal aspects or to analyse or predict that individual's performance at work, economic situation, location, health, personal preferences, reliability or behaviour

7 International Transfers

- Data must only be transferred to countries on an approved list, with a satisfactory level of protection
- Clients must be informed of the risks involved with moving data across borders and have given express consent and the business reason for the transfer
- Scope of 'legitimate interest' concept reduced to cover data transfers that are not repetitive, concern only a subset of data, and where all the controls regarding data safety have been applied

8 Global Reach

- Focuses on protecting the rights of European customers, including companies registered in non-member countries who offer their services to EU citizens. This is particularly important for UK financial service companies, as they are expected to be fully GDPR-compliant if they are to operate in the EU after Brexit

9 Privacy by design

- Firms must consider how client data is handled during its entire lifecycle in the processing pipeline: from collection to disposal
- Firms must collect only the minimum amount of data necessary for legitimate business reasons and it should not be shared with anyone unless client consent has been received

10 Right to erasure (right to be forgotten)

- Individuals have the right to request that certain types of data collected about themselves be erased once the original business need for holding onto it can no longer be justified

11 Data portability

- Individuals may ask for personal data collected about them to be provided in a readable format. This can then be passed onto any other vendor who can integrate it into their own systems

So what do financial services firms need to do in order to ensure compliance? The key, as with any upcoming legislative changes, is to ensure you know where your business is now, decide what areas will be affected, what needs to be changed and how you are going to facilitate the changes. The important thing will be to think ahead when building IT systems and at an early stage address questions such as:

- What data do we need?
- Why do we need it?
- How long will we need it for? and
- Who will process the data for us?

Careful consideration beforehand will avoid the need for costly changes later, possible reputational damage and the resulting hefty fines and penalties. Firms should also ensure that all partner contracts have a clearly defined minimum set of data protection requirements and a clear outline of roles and responsibilities.

Record keeping and logging should be made a top priority in order to facilitate a quick handover of information to the regulator should the need arise (ie, in the case of a breach). In the same vein, all terms and conditions, consent forms and privacy notices should be clear and in unambiguous language to ensure adequate consent is received for data usage as the onus to ensure this falls on the data collector.

Ultimately, the final impact of the new legislation will not be seen for a while, but the importance of planning can never be underestimated. Firms will need to embed a mindset where data privacy is at the heart of the company culture and not seen as a regulatory-imposed burden that slows down the business.

While there is little doubt about the possible reputational damage caused by data breaches, there is also no doubt about the benefits tighter security and customer confidence can bring. In today's business environment where reputation matters, getting it right first time will be key.

HOW WILL YOU PSD2?

By Chris Beer

The financial sector is no stranger to change and the area of payments is no exception. Significant shifts in consumer demand, alongside the introduction of disruptive technologies from the non-banking world, have led to the emergence of a raft of alternative payment methods, such as PayPal, iDEAL and SOFORT, to name a few. While this has been great for consumer choice, the lack of oversight or regulation has not been ideal for legislators and means that protection standards across Europe have varied from country to country.

Time for PSD2. The new Payments Services Directive, which updates an earlier version implemented in 2009, brings all new disruptive and innovative payment platforms under one regulatory umbrella. It comes into force in January 2018 and will be implemented into UK law via the Payment Services Regulations 2017 (PSRs).

In addition to promoting security and transparency in retail payments processing, PSD2 is aimed at lowering the barrier for new players wishing to enter the payments market. Going forward, Application Programming Interfaces (APIs) will be at the heart of European banking through a key PSD2 provision known as Access to Account (XS2A).

XS2A effectively mandates Payment Service Providers (PSPs), such as banks, to provide certified Third Party Payment Service Providers (TPPs) with non-discriminatory access to payment initiation and account information services via APIs. Under PSD2, TPPs would be able to use APIs to roll out their payment offerings and services across the European banking landscape.

APIs are protocols which enable software applications to communicate with each other. Social websites such as GoogePlus, Facebook and Twitter are built using APIs, which enable users to 'push' or 'pull' messages on their social profile to or from other websites. Paypal first provided APIs as early as 2010 and API enablement has been instrumental in its widespread adoption as a payment method.

The ensuing widespread introduction and adoption of APIs across the financial services industry has progressively challenged the concept that banks own their customers' data. In addition, there is a move towards the idea of 'open data' that gives customers the right to use their own transaction data and account-related information to procure products and services from financial institutions other than their account-servicing banks. API technology is therefore driving radical changes in the way the industry and consumers think about innovation.

So, what does this mean for the European banking system?

Brickendon believes there are several different possible approaches for banks, whereby they build their own external API for payment initiation and account information as mandated by PSD2; operate as a TPP with value-added services to avoid losing complementary add-on business; or operate as an open API platform, not only building the APIs that are mandatory for PSD2 and acting as a TPP, but also providing additional APIs to the developer community or FinTech companies to leverage internal expertise and remain ahead of the game.

While there are obvious pros and cons to each of the above options, the key is to adopt the strategy that best aligns to the size of a bank's retail transaction banking business and the maturity of its technological architecture.

Any institution that generates sizeable incomes from its' retail banking business will have an increased incentive to use the PSD2 framework to drive innovation to retain its retail customer base and associated transaction volumes. Those with sizeable transaction banking businesses and an average-to-high IT maturity level, should initially focus on meeting the deadlines for PSD2 regulation, while simultaneously designing an actionable high-level API strategy across the bank.

Once compliance is achieved, these banks should begin to ramp up efforts to selectively implement revenue-generating solutions through APIs, either by operating as a TPP or looking for partnerships with API and service innovators. In the longer-term, banks should ideally look to operate as an 'open' platform, possibly by creating an App Store for non-regulated APIs, whilst designing robust and scalable business models for API monetisation.

In short, while PSD2 may not come into force until the start of next year, now is the time to prepare. European banks that start thinking about PSD2 outside of the demands of immediate regulatory compliance and place customers at the core of future service innovation are likely to emerge as winners in the post-PSD2 era.

WHAT CAN BANKS LEARN FROM THE CURRENT POLITICAL SITUATION?

By Harpreet Singh

Anti-establishment is no longer a buzzword in political circles. In fact, it has become a cliché following the US election and the Brexit vote. Similarities are being drawn between the two events, and while there is no direct correlation between the political sentiment and the performance of the financial markets, a lot can be learnt from the undercurrents that led to the political results. Brickendon Director Harpreet Singh looks at what lessons banks can learn.

Before we dig deep into lessons we can learn from political changes, two things need to be kept in mind. Firstly, that the shift in political sentiment is not just confined to the West – it in fact started in the Middle East back in 2011 with the Arab Spring and moved onto India, the Maldives and Thailand, before manifesting itself in the Brexit vote and the US election result; and secondly, that the original driver of this movement was social change, and political upheaval was just one of the outcomes.

There are four common traits that financial institutions need to closely observe and learn from:

1. Establishment: Much of the social movement appears to be against the establishment. People are starting to challenge decades of established leaders and political parties, and are seeking to overthrow them either by democratic means or otherwise. In the corporate world, there is nothing more established than the banks. In fact, some of them have been around for centuries and are often seen as a necessary evil. By contrast, companies like Google and Apple appear anti-establishment but are in fact, established global businesses. Banks need to learn to tread this fine line by using their establishment credentials in innovative ways that appeal to a wider market.

2. Inexperience: Inexperience or novelty is no longer seen as a handicap and in some cases can even be seen as an asset. US President Donald Trump is a first-time politician and Brexit is a first-time event. In India, the current ruling party was given a chance only for the second time ever to rule in India's 70 years of independence. The same is true for new

banks and new financial services start-ups. People are becoming increasingly willing to give them a chance, especially after the failure of several banks in the US and UK. We are seeing unprecedented growth in the FinTech sector and now is the time for banks to seize the opportunity to adapt quickly and change their appeal if they want to successfully compete with these new entrants.

3. Traditional media limitations: Whether it's newspapers or the exit polls, they have repeatedly been proved wrong. In fact, fabricated news was reportedly shared millions of times on social media during the US election, and is believed to have been a contributing factor to the election result. Add to that the 500 million users of WhatsApp's encrypted messaging service, and it is easy to see why traditional polls and surveys are no longer the best means of gauging what people are thinking or reading. Now is the time for banks to adjust their marketing budgets away from traditional media and to find new ways of reaching customers. Indeed, the messaging itself also needs to be changed, with the likelihood that the fabricated news was shared so heavily because it was more interesting. Going forward banks need to align their messaging to the people in the language they speak and find interesting.

4. Devaluing experts: Inundating people with information from authoritative sources does not work anymore. The UK government sent 'remain' flyers to many homes during the Brexit campaign and Hillary Clinton spent a lot more money on her election campaign than Donald Trump. Both of these sides failed to achieve their goal. Many experts believe that a large proportion of voters didn't understand the economic consequences of their decision. However, it is also possible they did understand, but simply chose to ignore them because they already felt disenfranchised or valued their core belief more than the financial consequences of the result. The banks are in a very similar situation. Traditionally they were able to rely on their status as experts to advise their clients. In this new world, emotional connections with clients' beliefs and goals are likely to yield better results.

So how did we get to where we are today? Does the Arab Spring, a series of anti-government protests, uprisings and armed rebellions that spread across the Middle East in early 2011, have anything to do with the US Election result?

It is impossible to prove any direct correlation between events in different parts of the world, but major events now happen live for everyone to see on television, twitter, Facebook, WhatsApp and the internet. They may not directly impact the financial markets, but it is clear that the psyche of people and the way they interact with traditional sources of authority has radically changed. This change has become infectious because better communication has made the world a smaller place, and this is what the banks need to learn: if there is a huge financial revolution happening in some corner of the world and people are showing an interest, then it is worthy of their attention too. The chances are that in the next five years, it could also happen here.

LONDON VS EUROPE – THE NEW FINANCIAL BATTLEGROUND

By Christopher Burke

With speculation London could lose its status as one of the largest financial centres in the world post Brexit, the fight to gain a slice of London's financial credibility is well underway. Brickendon CEO Christopher Burke looks at what cities across Europe – from Frankfurt and Paris, to Dublin and Luxembourg – have to offer as they compete against each other to tempt financial services companies to relocate some or all of their operations.

With many different types of financial organisations – ranging from asset management and commercial banking through to insurance and clearing – these locations need to showcase their best assets and align their attributes in order to meet the complex needs of the financial services sector. Each marketplace has different requirements, making it unlikely that a single base would suit every type of banking operation.

With various officials trying to champion their cities and drum up business since the UK voted to leave the EU, here is an overview of the key European players looking to steal financial jobs from London.

Frankfurt

Currently the favourite to win over financial services companies, businesses looking to base themselves in Frankfurt could be drawn to the city's close proximity to the supervisory arm of the European Central Bank (ECB), as well as the stable political and economic environment. [1] Frankfurt is situated in the heart of Europe and is already home to Germany's largest stock exchange, as well as in recent weeks emerging as the frontrunner to coalesce big banks' trading operations.[2] With some of the lowest costs for private accommodation and office space in Europe, in addition to established financial infrastructure, Frankfurt is seen as a highly-competitive option for individual bankers and larger financial institutions alike.[3] On the other hand, Frankfurt is a comparatively small city constrained by its more modest size and is sometimes viewed as lacking the flair of more diverse and vibrant cities such as Paris.[4]

Paris

Paris has been on a sustained charm defensive, fighting hard to win over financial services companies. However, the campaign being waged by Paris to woo bankers, traders and big businesses risks being perceived as desperate. The French capital has been sending delegates to London on behalf of political and business leaders to try and tempt financial companies across the channel, while government representatives are making speeches about how the city can support financial services. Despite this, France's existing wealth taxes that impact assets valued at over €1.3 million[5] are a powerful deterrent for many businesses and entrepreneurs as well as the world's top banks and their employees.[6] This reputation for hostility towards the finance sector – in addition to far stricter employment laws, inflexible working regulations and higher costs – has hampered previous efforts to promote France as the ideal home for businesses.[7] As a result, France ranks only 29th on the World Bank's rankings of the best countries to do business. The UK, on the other hand, comes in at 7th in the world.[8]

Luxembourg

Luxembourg is already a political and economic gateway into Europe. The city boasts the headquarters for the EU and the ECB, something which many financial companies based in this picturesque city already cite as a benefit. While various leading and global companies have established their European headquarters in the city, it's been reported Luxembourg could only comfortably accommodate an additional 15,000 employees.[9] Although this seems a substantial figure, some estimates put the potential figure of London's finance and banking jobs that could be forced to relocate to the continent at 40,000 – revealing Luxembourg's limitations to house a new workforce.[10] The population of Luxembourg is almost 600,000[11] – over 400,000 people currently commute into the City of London everyday[12] – and while the quality of living in Luxembourg is high, it looks unlikely that it can easily absorb such large numbers of new arrivals.

That said, the UK and Luxembourg are united, particularly regarding financial services regulation. Both Luxembourg and the UK opposed EU proposals to introduce a financial transaction tax.

[13] As such, it could be beneficial for UK financial services companies to be based in a city that is particularly supportive of the sector and shares similar ideals to the UK.

Dublin

Propelled to the forefront of international commerce thanks to Ireland's "Celtic Tiger" economic boom, Dublin already benefits from a similar legal system to the UK while sharing the same time zone and language as its larger neighbour.[14] Several large multinational corporations already use the city as an important base while a vibrant start-up culture continues to attract businesses and entrepreneurs tempted by low costs. However, a lack of infrastructure – ranging from financial structures to the housing shortage – will likely limit the city's ability to capitalise on new opportunities resulting from the UK leaving the EU.[15] Lingering memories of the damage inflicted by the 2008 banking crisis has also played a role in the increasingly subdued reaction from some quarters in the city.[16]

London

If you believe some reports suggesting there will be a mass exodus of the banking sector from our shores, it's important to remember that London will likely remain as an important – if not preeminent – financial centre. This is not only due to the number of financial services companies who have a stronghold in the city, but because of it being one of the largest European hubs with the skills, demand and capacity to meet the international financial services sector's needs.

Now is however not a time for UK financial services companies to wait and see – it's a time to act. There are a range of options for the industry to consider – such as market access, potential unwinding, regulatory implications, staff and functions previously off-shored to other European member states, location of clients and competition for talent. We believe locating the right parts of your business in the right place at the right time can reduce operating costs by as much as 60 percent. By analysing the structure and methods of your financial services business, you can implement programmes to improve the organisation's performance, helping it to improve its market position in an unpredictable landscape.

To find out how you can optimise your workforce globally in the ever-changing financial and political environment, visit our website and read our report - Location Optimisation in a Brexit World.

Footnotes: [1] Bloomberg, Nov 16; [2] Financial Times, Apr 17; [3] Bloomberg, Mar 17; [4] Financial Times, Mar 17; [5] Financial Times, Apr 17; [6] FT.com, Dec 16; [7] Reuters, Nov 16; [8] The World Bank – Doing Business; [9] FT.com, Jul 16; [10] Fortune, Jun 16; [11] Worldometers; [12] City of London; [13] FT.com, Jul 16; [14] Financial Times, Mar 17; [15] Independent.ie, Mar 17; [16] Politico, Feb 17

AI AND PEOPLE: THE FUTURE IS IN THE RELATIONSHIP
By Claire Shoesmith

News that a 20-day Poker tournament ended with a robot beating the world's four best players and amassing $1.7 million in chips has been described as a crushing defeat for humanity, but a major milestone for artificial intelligence. It's not the first time that phrase has been used and definitely won't be the last, says Brickendon Research Consultant Claire Shoesmith.

Artificial Intelligence, or AI as it is known, has been around for a long time, though its progress up until now has been relatively slow. While we have robots that can carry out menial tasks and algorithms that can solve highly technical problems, some as life-changing as detecting new forms of cancer, doubts still remain over how a machine will ever reach so-called artificial general intelligence. That is the ability to combine vastly different types of problem-solving capabilities and learn to advance itself along the way – the hallmark of human intelligence.

The landmark in the latest robotic achievement – winning at poker – is that poker is a game played with imperfect information. Unlike with other games such as chess, poker players don't get to see each other's hands and are required to bluff and correctly interpret misleading information in order to win. Tuomas Sandhol, a professor of computer science at Carnegie Mellon University and creator of the poker-winning machine known as Libratus, described the challenge as one that is so huge and complicated that it has been elusive to AI researchers until now. Even going into the tournament, international betting sites put Libratus as the underdog at 4-1 and expected the humans to win.

Unlike with other such computer robots, Libratus wasn't told how to play poker, instead it was given the rules and told to learn on its own. According to Sandhol, the bot, as he calls it, started playing randomly and over the course of playing trillions of hands was able to refine its approach and arrive at a winning strategy.

The algorithms that power Libratus aren't specific to poker, meaning the system could have a variety of applications outside of recreational games, from negotiating business deals to setting military or cybersecurity strategy and planning

medical treatment – anywhere where humans are required to carry out strategic reasoning with imperfect information.

The key thing to take away from this experience is that artificial intelligence is not something to be ignored. Now is the time for companies to embrace the phenomenon and learn how humans and computers can play off each other's strengths to create competitive advantage.

While some tasks will, without doubt, be easily conducted by machines, other more highly-cognitive tasks will require partnerships between machines and individuals. As such, instead of scaremongering about how machines are going to take away our jobs – a recent report from Oxford University estimated that 47 per cent of US jobs could be automated within the next two decades, we need to take the opportunity to adapt our skills to take advantage of what machines are capable of and to work in tandem with them to develop complimentary roles and responsibilities.

In reality we are entering an era of cognitive collaboration in which machines can be used to help us make better decisions and it is time we learnt to use them to our advantage.

Earlier this year, Citigroup released a report entitled digital disruption, in which it said there was a huge cost take-out opportunity for financial institutions from the fast-growing area of regulatory technology. With a staggering $40.6 billion predicted spend on AI by 2024, it is vital we make it work for us. In the future, AI will form a critical part of every business' infrastructure, making it vital for company decision-makers to understand how this technology can, and will, disrupt traditional models.

As financial firms already accustomed to using technology to help reach our goals, it is time to take things one step further and see how we can improve our customer and user experience. In short, how can financial institutions leverage digital transformation to advance their competitive position, strengthen customer engagement and improve performance?

In the past the focus was on increasing accessibility by facilitating the use of mobile devices. More recently it has been on information insight – providing consumers with products and services that meet their needs when and where they need them. Going forward, the key will be how you handle your data. Done correctly, financial institutions should be able to use this to make informed business decisions, providing their customers with the best possible user experience.

One of the main challenges facing these institutions is data complexity. With the amount of data in the world almost doubling each year, it is a challenge that shows no sign of abating. As a result, learning how best to extract meaningful and actionable intelligence from the raw data is essential if you are to stay ahead of the competition. This is where AI can help, as such tools are able to read, review and analyse vast quantities of disparate data quickly and efficiently. Still, while progress is being made in this area, there are several things that AI cannot cater for in the short term and they are the fostering and maintenance of client relationships, product creation and innovation, as well as the insights for the future.

So, whatever your plans for the future, it seems embracing AI is a step in the right direction. The fact that no one is yet certain of the full potential of this technological development only enhances the opportunities and, providing you make your move soon, levels the playing field for all participants.

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Brickendon is an award-winning global management and technology consultancy specialising in innovative solutions that save our clients time and money. Our aim is to deliver transformational change across our three key offerings of Advise, Change and Do, through our five practice areas: Data, Quality & Test, Risk & Regulation, Strategy and Digital. This helps ensure our clients see positive results in weeks, not months or years.

Employing domain experts with over 10 years' respective experience in specialist sectors, Brickendon is built on providing lasting, cutting-edge solutions designed to improve profitability, efficiency, competitiveness and innovation across the financial services sector. We are passionate about what we do and thrive on transforming companies to increase their competitive edge.

Started in 2010, the driving force behind Brickendon's global strategy is transforming the traditional consultancy model by providing lasting, cutting-edge solutions that improve companies' profitability and efficiency, increasing their competitive edge. We have offices in London and New York and are continuing to grow our footprint strongly.

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